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## LEAD FRAME AND BGA RESIN SEALED SEMICONDUCTOR DEVICE

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## Abstract:

**PURPOSE:** To provide a lead frame which can cope with the further increased number of terminals and can be used as a core material for forming a circuit by forming external terminals so that their two faces can be on the surface of the material of the lead frame and the other two faces can be projected to the outside of each external terminal section from the inside.

**CONSTITUTION:** The front end section 110A of an inner lead has a nearly square cross section and four surfaces and the first surface 110Aa of the inner lead is in the same plane with one surface of a thick external terminal section 120 on the surface of the material of a lead frame. The second surface 110Ab of the inner lead is composed of an etched surface, but is almost flat and wire bonding can be easily performed on the surface. The third and fourth surfaces 110Ac and 110Ad are recessed toward the inside of the inner lead so as to increase the strength of the inner lead even when the width of the second surface 110Ab is reduced. An external terminal 120 has a nearly square cross section and four surfaces. The paired facing two surfaces 120a and 120b of the terminal 120 are projected toward the outside of the terminal 120 from the inside.

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